

much" to 4 "disagree/dissatisfied very much". Correlation analysis was performed to identify the relationship between working motivation and job satisfaction. Also, multivariate regression analysis with stepwise method was conducted between overall job satisfaction and various working motivation dimensions. **RESULTS:** 141 out of 150 nurses filled out the questionnaire (RR 94%). The majority of the sample (68.8%) was female and belonged to the 21–30 years old group. Working motivation scoring was ranged from 2.54 to 2.04, meaning positive, except from working relationships (1.8 ± 0.7). Also, the mean of overall job satisfaction was 2.3 ± 0.6, meaning satisfied. Positive correlation was found between working motivation and job satisfaction ($p \leq 0.01$), with the exception of salary and working relationships. Personal development ($\beta = 0.227$), job interest ($\beta = 0.254$), responsibility ($\beta = 0.149$) and recognition ($\beta = 0.154$), were significant predictors of overall job satisfaction ($p \leq 0.05$). Reporting high motivation from work was positively and significantly associated with higher job satisfaction. **CONCLUSIONS:** Working motivation of health professionals contributes to the enhancement of their job satisfaction and consequently to the improvement of health services provision.

PHP176

FACTORS INFLUENCING JOB SATISFACTION AMONG NURSES OF PAFOS GENERAL HOSPITAL IN CYPRUS

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OBJECTIVES: To assess the job satisfaction of the nursing staff of the Pafos General Hospital in Cyprus. **METHODS:** A cross-sectional survey was conducted in April 2014. All 150 nurses (RR=100%) working at the General Hospital of Pafos filled out a standardized, self-administered questionnaire with a 5-point Likert scale, regarding the assessment of job satisfaction, working conditions and personal well being. The questionnaire scoring from 1 represented "very dissatisfied" to 5 "very satisfied". In order to investigate the association among job satisfaction as dependent variable and sociodemographic characteristics of the sample, satisfaction of working conditions and personal well being as independent variables, multiple linear regression analysis was performed with backward method. Also, correlation analysis, using Spearman rank coefficient, was conducted to quantify the strength of association among job satisfaction and independent variables. **RESULTS:** The majority of the sample (64.7%) was female and permanent employees (60.7%). The mean age was 33.7 (S.D. 9.7) years. The personal well being score was 4.1 (S.D. 0.6), which means satisfied. The working conditions and job satisfaction scores were 2.2 (S.D. 0.7) and 2.9 (S.D. 0.9), showing low and moderate satisfaction respectively. Age ($\beta = -0.321$, 95% C.I. -0.650, -0.008), permanency of job ($\beta = 0.346$, 95% C.I. -0.005, 0.697), satisfaction of working conditions ($\beta = 0.532$, 95% C.I. 0.331, 0.732) and personal well being ($\beta = 0.444$, 95% C.I. 0.188, 0.700) were significant predictors of overall satisfaction ($p \leq 0.05$). Positive correlation was found between job satisfaction and working conditions ($r_s = 0.349$, $p \leq 0.001$) and personal well being ($r_s = 0.185$, $p \leq 0.024$) respectively. **CONCLUSIONS:** The assessment of nurses' working conditions appears to contribute to the improvement of job satisfaction, the enhancement of productivity and nursing care outcomes.

PHP177

LEGAL AND ETHICAL IMPLICATIONS OF USING DATA FROM SOCIAL MEDIA WEBSITES

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OBJECTIVES: Most social media (SM) sites have common terms and conditions dictating how data from the sites may be used, but how these relate to health care research is usually unclear. We analyzed studies included in two separate systematic literature reviews to assess whether researchers have evaluated the legal and ethical implications of using SM as a clinical tool or as a data source for health care research. **METHODS:** In the first review, MEDLINE and Embase were searched (2008–2013) for articles evaluating the use of SM as a tool or application in health care. In the second review, MEDLINE and Embase were searched for English language studies on the use of SM in the context of adult vaccination. We assessed whether any of the individual studies considered the legal and ethical implications of using SM sources. **RESULTS:** The first review identified 3,232 unique abstracts; 36 reported on interactive, internet-delivered programs, Facebook, and mobile apps, for improving health outcomes of patients with cancer, or inflammatory, mental health, musculoskeletal, neurologic, ophthalmologic, or sexual health-related disorders. The second review identified 1,264 publications, of which 32 used SM to communicate with patients, analyze content, or recruit patients for studies related to perceptions of adult vaccines. Among these 68 publications, no study reported whether the legal or ethical implications of using SM content were considered prior to conducting research. **CONCLUSIONS:** The evidence suggests that legal and ethical implications of utilizing data from SM websites are not reported, and may not be considered, in current SM research. It is unclear whether this reflects the lack of clarity about what these restrictions mean for health care research, or whether researchers are not aware that such restrictions may exist. An informed debate to raise awareness of these issues and come to an understanding of the best way forward is urgently needed.

PHP178

PHENOMENON OF INAPPROPRIATE DRUG MANUFACTURING IN CHINA - PAST AND PRESENT

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OBJECTIVES: It was an unspoken fact that Chinese manufacturers copying patent-protected drugs inappropriately (e.g. aripiprazole (neurology), pemetrexed (oncology), tiotropium bromide (respiratory)). The purpose of this study is to explore this phenomenon among the drugs currently included in the National Drug Lists (NDLs) and trends in the recent years. **METHODS:** Reimbursed drugs from three therapeutic areas (neurology, oncology and respiratory) were identified from the 2012 NDLs. The marketing years of the import (originator) drugs and local 'branded'/generic

drugs were found using the online Drug Future Chinese Market Drugs Database (accessed December 2013 to January 2014). **RESULTS:** 260 drugs for neurological diseases, 106 drugs for oncology and 76 drugs for respiratory diseases were identified; 92, 42 and 26 drugs respectively had the marketing years of both import brands and local brands were available. 32 (~35%) neurological drugs, 13 (31%) oncology drugs and 11 (42%) respiratory drugs had local 'branded'/generic versions available before the imported (originator) version. Most of these drugs in all three therapeutic areas were marketed between 2002 and 2003, whilst their imported (originator) versions were marketed 1–7 years later. Since 2009, no originator drug has been found marketed later than their local 'branded'/generic versions. **CONCLUSIONS:** The low number of local 'branded'/generic drugs marketed before the imported drugs in recent years suggests that the IP issue in China might have improved since the 2009 health reform. Current Results also suggest that respiratory medicine was most popular for inappropriate local manufacturing. It is yet to find out whether this observation was related to the costs of the originator drugs, the market demand, difficulties in copying new molecules due to their complexity, or high cost of manufacturing. These results may act as the basis to further explore future IP issues in China.

PHP179

THE ECOLOGY OF MEDICAL CARE IN JAPAN REVISITED

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OBJECTIVES: Studies on the ecology of medical care have provided a framework for health care systems, medical education, and clinical research. Ten years ago, Fukui et al. reported the ecology of medical care in Japan. However, medicine and health care organization has changed since then. In the current study, we conducted an updated evaluation and compared it to results observed 10 years ago to understand health care seeking behaviors of people in Japan. **METHODS:** A population weighted random sample from a nationally representative panel was used to estimate the number of health-related symptoms, self-care, and health care utilization per 1,000 individuals based on a prospective health diary recorded for one month. Variations in terms of age and gender were also examined. **RESULTS:** Based on 4,548 persons (3,787 adults and 797 children), on average per 1,000 persons, 794 (95% Confidence Interval (CI): 782 - 805) had at least one symptom, 447 (95% CI: 433 - 462) used over-the-counter drugs (OTC), and 265 (95% CI: 252 - 278) visited a physician's office, 206 (95% CI: 194 - 218) a primary care physician, 4 (95% CI: 2 - 5) a hospital emergency department, and 117 (95% CI: 107 - 126) a professional provider of complementary or alternative medical (CAM) care. Children had more physician visits, and adult used more OTC and CAM. Females were more likely than males to have symptoms, to visit their physician and to use OTC and CAM. **CONCLUSIONS:** Compared with the data from 2003, health care seeking behaviors of people with symptoms in Japan are remarkably similar, with the exception of an observed increase in the use of CAM. Results of this study would be useful for further delineation of health care seeking behaviors of people in the context of a health care system unique to Japan.

PHP180

WHAT IS THE PROPORTION OF PATIENTS WHO RETURN COUNTER REFERRAL SLIPS TO THE ORIGINAL REFERRAL SERVICE FOR CONFIRMATION OF ARRIVAL TO THE HOSPITAL?

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OBJECTIVES: Counter referral success rate is defined as number of patients received back at the original referring service with counter referral slips divided by the total number of patients referred and received at the referral hospital. Study objective was to determine the number of patients who returned counter referral slips to the original referral service for confirmation of arrival to the hospital. **METHODS:** Quasi-experimental study was carried out in two sub-locations in Kenya where hundred community health workers were trained on community based referral and counter referral model and issued with referral tools. Each was assigned 25 households, instructed to regularly visit them in order to identify sick persons counsel and refer them to link hospitals. One hundred villages comprising 2209 households with a population of 11,000 people were covered where the counter referral model was implemented. **RESULTS:** During the 12 months of implementation, a total of 322 patients were identified, counseled and referred to link hospitals of whom 93% (298/322) arrived the hospitals with referral and counter referral slips. The study showed that forty six percent (138/298) of counter referral slips had the name, signature and date of referring health worker, only 12% (35/298) indicated CHW's telephone contact. Forty one percent (121/298) had the name and signature of attending physician of which 96% (116/121) had hospital stamp. Further, forty seven percent (140/298) of the patients returned counter referral slips to the original referral service for confirmation of arrival at the referral hospital. Fifty one percent (117/228) were satisfied with referral and counter referral process. **CONCLUSIONS:** It is concluded that referral and counter referral model is both feasible and acceptable. However, referral protocols and other resources are necessary for the process to be successful. Further, both ends should be willing and prepared to receive those being referred there.

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WHAT IS THE PATIENTS' MEDIAN DELAY FROM THE REFERRING COMMUNITY HEALTH WORKER TO ARRIVAL IN THE LINK HEALTH FACILITY?

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OBJECTIVES: Median delay could be defined as time taken in days from referring health facility to arrival at receiving link health facility. The purpose of the study was to determine the amount of time (in days) patients take to arrive at the link health facility for health care after being referred from the household by community health workers. **METHODS:** Quasi-experimental study was carried out in two